

Name: _____

Date: _____

Algebra 1B Pd _____

Weekend Word Problem #5: Linear Inequalities

The Situation: Kyle receives a \$175 gift card to Amazon and he wants to purchase some video games and some books. All video games cost \$25 and all books cost \$10. Kyle can spend no more than the money on his gift card and he wants to purchase at least two books and at least one video game. What are the possible solutions for video games and books he can buy?

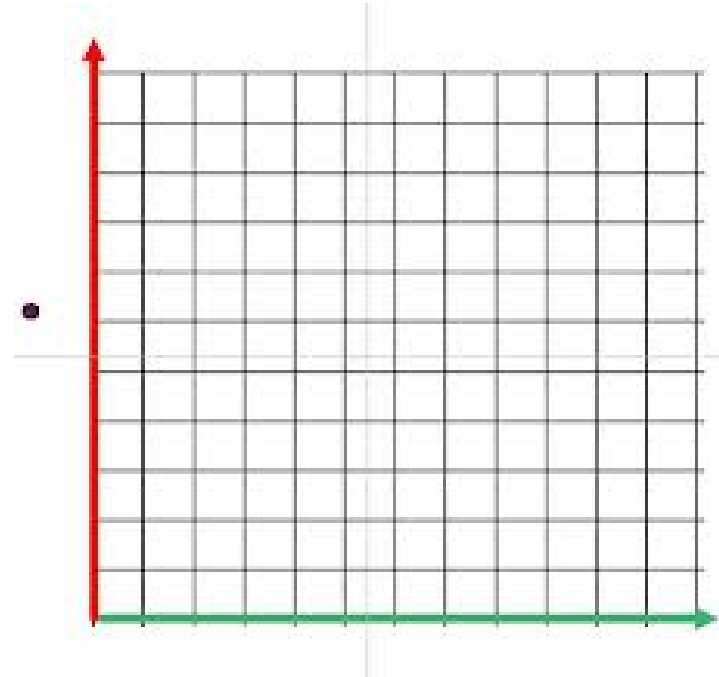
Let v = # of video games and let b = # of books.

1. There are THREE inequalities that describe this situation. Two are provided for you. Write the third inequality.

$$b \geq 2$$

$$v \geq 1$$

2. Graph the system of linear inequalities. Label your axes, increments and boundary lines. Show all work, including your test points.



3. Find a solution in which Kyle spends all or most of his money. Describe the solution in complete sentences using algebraic terms. How is this a possible solution? Write out all numbers.
